

# Systematics of some South Indian Sternophorid Pseudoscorpions (Pseudoscorpionida, Monosphyronida)

by

S. SIVARAMAN

With 4 figures

## ABSTRACT

Record of a new genus *Indogaryops* and the description of four new species are given. The relationships of the so far recorded genera of the family Sternophoridae Chamberlin are discussed. Key to the world genera and species of India and Ceylon are provided.

## INTRODUCTION

Among the monosphyronid pseudoscorpions, the members of the family Sternophoridae Chamberlin are now known to occur in many parts of the tropical and sub-tropical regions of the world. Four genera have so far been recognised, of which the members of the Genus *Sternophorus* Chamberlin are wide spread in distribution. Genus *Garyops* Banks has been reported from Central America, Florida and West Indies. From Central and Southern United States HOFF (1963) has reported a closely allied genus to the former, *Idiogaryops*. The Genus *Sternophorellus* Beier (1971) has been recorded from New-Guinea. *Indogaryops*, described here-in-under is a new genus from Amrithi forest, Tamil Nadu, India.

As a family characteristic, the sternophorids can be recognised by the extensive intercoxal area or pseudosternal plate enclosed by the pedal coxae. Except in species of *Sternophorus*, there is a row of 6 to 12 heavy, regularly and terminally spatulate setae along each chelal finger, the row running parallel to and on the inner side of the marginal teeth are known to occur in the other genera including the new genus *Indogaryops*.

Besides, three new species of the genus *Sternophorus* are described, of which two new species are placed in the subgenus *Afrosterophorus* Beier, which is recorded for the



*Sternophorus (s.str.) montanus* n.sp. (Fig. 1)

Anterior 1/3 of the carapace reddish brown and sclerotised; posterior part uniformly yellowish brown, palps reddish brown; anterior region moderately convex and the posterior flattened; surface of the carapace smooth without granulations; anterior end of the carapace without cucullus bearing 6 setae; posterior margin with 2 setae; vestitural

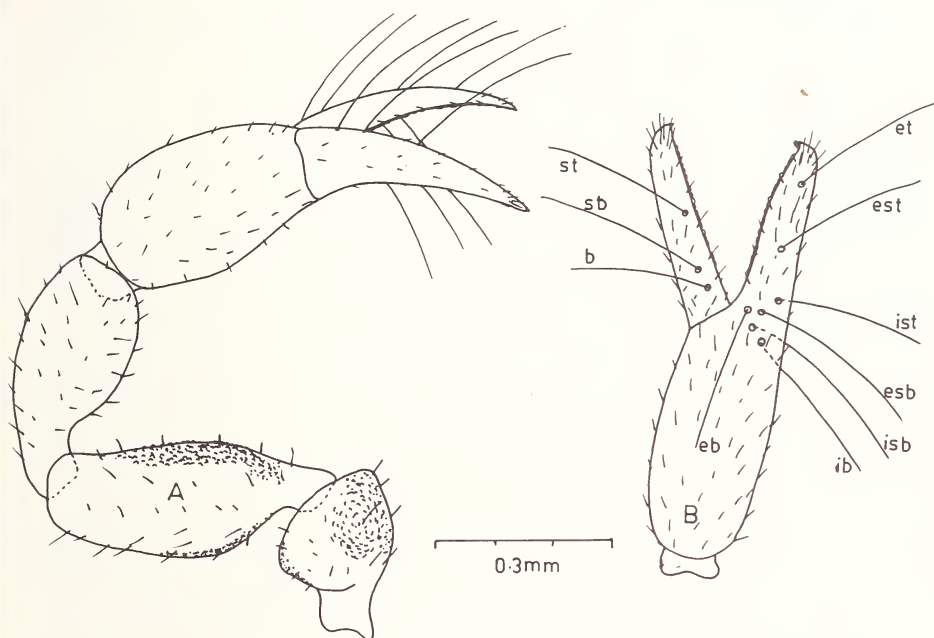


FIG. 1.

*Sternophorus (s.str.) montanus* n.sp.

A. Pedipalp entire (♂); B. Chela, lateral view.

setae well distributed and acuminate; eyes or eye-spots absent; carapace with the maximum width in the region between 2nd and 3rd pairs of legs; 1.26 to 1.3 times as long as wide.

Tergites weakly sclerotized, light yellowish brown; tergite II slightly narrower than others; tergal chaetotaxy: 6-6-4-4-6-6-6-8-8-8-12-2 m, tergite X with 4 and tergite XI with 4 long pseudotactile setae; sternites pale yellowish in colour; sternite II weakly divided; sternites IV to XI with chaetotaxy: 4-6-6-8-8-8-10-10; sternite XII reduced with 2 small setae; sternites X and XI with 4 pseudotactile setae each; sternite II of female without setae and III with two groups of 5 setae; cribriform plates feebly developed without spurs; sternal setae shorter than the tergal setae.

Chelicerae light brown; surface smooth; palm with 4 setae; long and acuminate; *ls* being the missing seta; *sb* equal to the length of fixed finger; flagellum with 3 blades, proximal one short, distal two much thickened and long; fixed finger with 3 terminal serrations followed by 3 triangular teeth; serrula interior well developed and smooth; movable finger terminally blunt; apical lobe and subapical lobe are seen side by side, protruding from the blunt end of the finger; galea well developed in female, with 2 terminal and two subterminal branches; males with three subapical bud-like projections in the galea; galeal seta well developed and short; serrula exterior with 12 to 13 blades, last three slightly longer and acuminate; chelicerae, 1.78 times as long as deep; 1.6 times as long as the movable finger.

Palps shorter than the body, podomeres fairly stout; surface granules conspicuous on the heel of the trochanter and flexor surface of femur and tibia; chela smooth; investing setae conspicuous, long and acuminate; trochanter with a stout pedicel; 1.53 times as long as wide; heel well developed, 1.1 times as width of trochanter; almost equal to the width of femur; femur with a short pedicel, which is wider than long; basally more swollen; 2.28 to 2.34 times as long as wide; femur longer than tibia and fingers, equal to the length of hand; tibia with a stout pedicel; body roughly oval; 2.05 to 2.12 times as long as wide; chela pedicellate; 3.48 to 3.55 times (with pedicel) and 3.25 to 3.3 times (without pedicel) as long as wide; hand in lateral view with dorsal and ventral margins very weakly convex and almost parallel; 2.1 to 2.3 times (with pedicel), 1.9 to 2.1 times (without pedicel) as long as wide; fingers smooth, subequal in length, shorter than hand, equal in length of tibia and gently curved in the distal half; fixed finger with 18 teeth and the movable finger with 19 teeth; they are arranged nearly the entire margin of each finger except the proximal 7/8th of the finger; teeth varying from retroconical and cuspidate in the distal and middle, shallow rounded ones in the 1/3 basal part of the row. Fixed finger with a row of 5 small setae running parallel to the row of the marginal teeth; movable finger with 9 setae in such a row of which 5 are heavy setae alternatively placed with small thin setae; fixed finger with 7 setae, *it* being absent; distal half of the finger with only *et*; *esb* and *eb* side by side; *est* in the middle region between *et* and *esb*; *ib* and *isb* separated by 3 areolar diameters; *ist* well separated from *isb*; movable finger with 3 tactile setae, *t* being absent; *sb* and *b* separated by three areolar diameters; *st* in the middle region of the finger; venom teeth well developed in both fingers.

Legs stout, yellowish; segments smooth; investing setae fine and acuminate; basifemur and telofemur of all the legs articulated by a straight suture. Leg I: basifemur shorter than telofemur; femur 2.18 times; tibia 2.43 times and tarsus 2.4 times as long as deep. Leg III and IV with long pseudotactile setae on tibia and tarsus, one in the middle region of tibia and the other near the base of the tarsus. Leg IV: femur 2.44 times; tibia 2.84 times; tarsus 2.34 times as long as deep. Claws normal, strong and symmetrical; arolia well developed, shorter than the claws.

*Holotype male* (Measurements in mm):

Total body length 2.057; maximum width 0.578; carapace 0.723 by 0.556; chelicerae 0.178 by 0.100; movable finger 0.111 long.

Palps: trochanter 0.289 by 0.189; heel 0.211; femur 0.456 by 0.195; tibia 0.40 by 0.189; chela 0.790 (without pedicel 0.723) by 0.222; hand 0.456 (without pedicel 0.389) by 0.222; fingers 0.411 long.

Leg I: femur 0.267 by 0.122; tibia 0.189 by 0.078; tarsus 0.133 by 0.056. Leg IV: femur 0.434 by 0.178; tibia 0.300 by 0.106; tarsus 0.156 by 0.067.

Collected from bark, Alakarkoil Hill forest, Madurai, 15.7.1977.



*Allotype female*: Collected from bark, Alakarkoil Hill forest, Madurai, 15.7.1977.

This new species is very closely related to *Sternophorus transiens* Murthy and Ananthakrishnan in having distinct trochanteral tubercle and the serrula exterior having 12 to 13 blades. It can be differentiated from the same based on the stouter nature of palpal femur (2.28 to 2.34 times—*S. montanus*; 2.5 to 2.7 times—*S. transiens*) and slender nature of chela with pedicel (3.48 to 3.55 times—*S. montanus*; 3.2 to 3.4 times—*S. transiens*), and also in having fingers shorter than hand and equal to the length of tibia as against fingers longer than hand and tibia. It is distinguishable from *S. indicus* and *S. chamberlini*, closely allied species of *S. transiens*, in not having pseudotactile seta on the dorsum of femur and the well developed nature of trochanteral tubercle.

It differs from *S. ceylonicus* Beier (from Ceylon) by the stouter palpal podomeres.

### ***Sternophorus (Afrosterophorus) femoratus* n.sp. (Fig. 2)**

Carapace uniformly yellowish brown, palps reddish brown; anterior 1/3 of the carapace with net-like markings, posterior part much wider. Anterior end with a distinct cucullus bearing 6 setae; posterior margin with 2 setae. Setae on the carapace moderately developed and acuminate; eyes or eye spots absent. Carapace with the maximum width in the region of second pair of legs; 1.17 to 1.22 times as long as wide.

Tergites weakly sclerotized, light yellowish brown; tergites II and III slightly narrower than others; chaetotaxy 6-6-4-4-6-6-6-6-8-8-12-2 m. Tergite X and XI with 4 long pseudotactile setae each. Sternite yellowish; sternite II feebly divided, chaetotaxy of IV to XI 4-4-4-6-6-6-6-12. Sternite XII reduced, with 2 setae. Sternites X and XI with 4 pseudotactile setae each; sternite III of female with two groups of 6 acuminate setae on either side of the genital aperture; stigmata without seta. Cribiform plates without spurs or spines.

Chelicerae light brown, palm with 4 setae; *es* and *is* short and blunt; *ls* being the missing seta. *sb* equal to the length of the movable finger. Flagellum with 3 blades, proximal one short and distal two long and slender. Fixed finger with 2 terminal serrations followed by 4 triangular teeth; serrula interior well developed and smooth. In female galea stout and well developed with two terminal and two subterminal branches; in males without rami. Galeal seta short and blunt extending upto the base of the galea. Serrula exterior with 12 blades of which basal two slightly longer and blunt. Chelicerae 1.50 to 1.58 times as long as deep; 1.42 times as long as the movable finger.

Palps shorter than body, podomeres stout; surface granules conspicuous on the trochanter and flexor margins of femur and tibia; chela smooth; investing setae conspicuous, long and acuminate; trochanter with a stout pedicel, 1.4 to 1.5 times as long as wide; heel well developed, 1.1 times as the width of trochanter, slightly lower than the width of femur and tibia and 0.75 times as the width of chela; femur with a short stout pedicel which is wider than long, subbasally more swollen, with two pseudotactile setae on the dorsal aspect, 2.4 to 2.45 times as long as wide; femur much longer than tibia, hand and fingers, tibia with a stout pedicel, almost equal in length of hand and fingers, 2.1 to 2.15 times as long as wide; chela pedicellate, oval in shape 3.6 to 3.75 times (with pedicel) 3.3 to 3.45 times (without pedicel) as long as wide in females and 3.4 to 3.6 times (with pedicel) 3.2 to 3.5 times (without pedicel) as long as wide in males; the sides of the hand almost parallel, 1.65 to 1.73 times (with pedicel), 1.47 to 1.52 times (without pedicel) as long as wide in females and in males, 1.7 to 1.85 times (with pedicel) 1.5 to 1.6 times (without pedicel) as long as wide. Fingers subequal in length, gently curved; fixed finger with 18 to 21 teeth and movable finger with 16 to 21 teeth and they vary in shape as

retroconical and cuspidate; shallow rounded teeth in the  $1/3$  basal part of each row. Fixed and movable fingers with a row of 6 to 8 small setae each running parallel to the row of marginal teeth. Fixed finger with 7 tactile setae, *it* being the missing seta; distal half of the finger with only *et*; *est* much distal to *esb*. *est* near to *esb* than to *et*; *eb* basal to *ib*; *ist* well separated from *isb*, placed midway between *est* and *isb*, *ib* and *isb* separated by two areolar diameters. Movable finger with 3 tactile setae, *t* being absent. *b* and *sb*

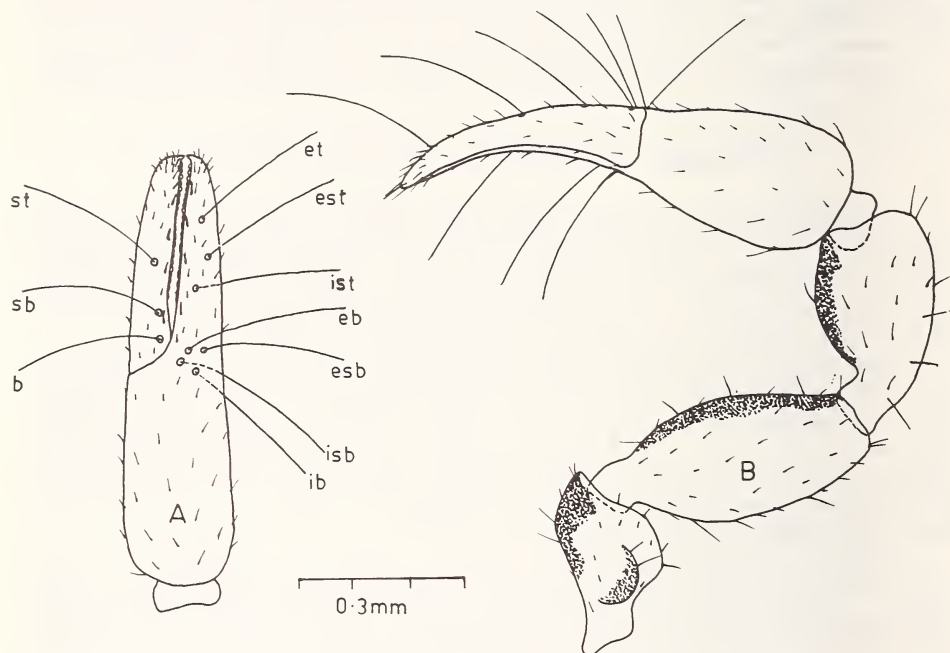


FIG. 2.

*Sternophorus (Afrosterophorus) femoratus* n. sp.

A. Chela, lateral view; B. Pedipalp entire (♀).

separated by two areolar diameters in the proximal half on the finger and *st* in the middle region of the finger slightly towards the distal region. Venom tooth well developed in both fingers.

Legs slender, anterior 2 pairs brownish yellow and posterior 2 pairs yellowish in colour; segments apparently without surface sculpture; investing setae sparse, fine and acuminate; basifemur and telofemur of the anterior pairs of legs articulated by a straight line and posterior pairs by curved line. Leg I: basifemur shorter than telofemur; femur 2.36 times; tibia 2.25 times and tarsus 2.5 times as long as deep. Leg III and IV with long pseudotactile setae on tibia and tarsus, one in the middle of tibia and the other attached to the base of tarsus; tibial pseudotactile seta shorter than that of tibia and tarsal pseudotactile seta equal in length of tarsus. Leg IV: femur 2.35 times; tibia

3.0 times and tarsus 2.33 times as long as deep. Claws well developed, stronger and symmetrical, arolia entire and well developed, shorter than claws. At the distal end of the tarsus there are 6 small stout setae. The length width ratio of the third coxa 1.63 times as long as wide.

*Holotype female* (Measurements in mm):

Total body length 2.245; width 0.889; carapace 0.812 by 0.667; chelicera 0.20 by 0.111; movable finger 0.128 long.

Palps: trochanter 0.30 by 0.189; heel 0.217 long; femur 0.467 by 0.239; tibia 0.434 by 0.222; chela 0.878 (without pedicel 0.834) by 0.256; hand 0.423 (without pedicel 0.378) by 0.256; fingers 0.456 long.

Leg I: femur 0.289 by 0.122; tibia 0.20 by 0.89; tarsus 0.139 by 0.056. Leg IV: femur 0.445 by 0.189; tibia 0.334 by 0.111; tarsus 0.156 by 0.067. III coxa 0.289 by 0.178.

Collected from the bark, Amrithi forest, North Arcot, Tamil Nadu, 2.10.1977.

*Allotype male*: Collected from the bark, Amrithi forest, North Arcot, Tamil Nadu, 2.10.1977.

*Paratypes*: 4 females collected from the same locality. 2.10.1977.

This new species can be separated from *Sternophorus* (*Afrosterophorus*) *intermedius* n. sp. based on the width of the trochanter shorter than the width of femur and tibia; the elongated nature of the carapace and the stouter nature of the coxa of III pair of legs.

The recognition of the subgenus *Afrosterophorus* is based on the anterior end of the carapace forming the cucullus and is recorded from India for the first time.

***Sternophorus* (*Afrosterophorus*) *intermedius* n.sp. (Fig. 3)**

Carapace yellowish brown, palps reddish brown; anterior 1/3 of the carapace with stripes like markings, posterior part wider. Anterior end with a distinct cucullus bearing 6 setae; posterior margin with 2 setae. Setae on the carapace moderately developed and acuminate; eyes or eye spots absent. Carapace with the maximum width in the region of third pair of legs; 1.26 to 1.35 times as long as wide.

Tergites weakly sclerotized, light yellowish brown; tergite III slightly narrower than others; tergal chaetotaxy 6 - 6 - 4 - 6 - 6 - 6 - 8 - 8 - 8 - 8 - 12 - 2 m. Tergite X and XI with 4 long and acuminate pseudotactile setae. Sternites pale yellowish in colour; sternite II weakly divided; sternites IV to XI with chaetotaxy 4 - 8 - 8 - 8 - 6 - 8 - 10 - 10. Sternite XII reduced with 2 small setae; sternite X and XI with 4 pseudotactile setae each; sternite II of female without setae and III with two groups of 6 acuminate setae on each on either side of the genital opening; two pairs of stigmata with a short thin seta on each. Cribriform plates without spurs.

Chelicerae light brown, surface smooth; palm with 4 setae; *ls* being the missing seta. *es* and *is* long, *b* short; flagellum with three blades, proximal one shorter; distal two much thickened and long. Fixed finger with 2 terminal serrations followed by 3 triangular teeth; serrula interior well developed and smooth; movable finger terminally blunt; apical and subapical teeth well developed and blunt. Galea well developed with 2 terminal and one subterminal branches in females; males without rami of the galea; galeal seta well developed extending upto the stem of galea. Serrula exterior with 12 blades, last two slightly long and acuminate; chelicerae, 1.88 to 1.95 times as long as deep; 1.7 to 1.8 times as long as the movable finger.

Palps shorter than the body, podomeres fairly stout; surface slightly granulate; surface granules conspicuous on the trochanter and flexor surface of femur and tibia; chela smooth; investing setae conspicuous, long and acuminate trochanter with a stout pedicel, 1.3 to 1.54 times as long as wide; heel well developed, 1.8 times as the width of trochanter, slightly lower than the width of femur and 0.8 times as the width of the chela; femur

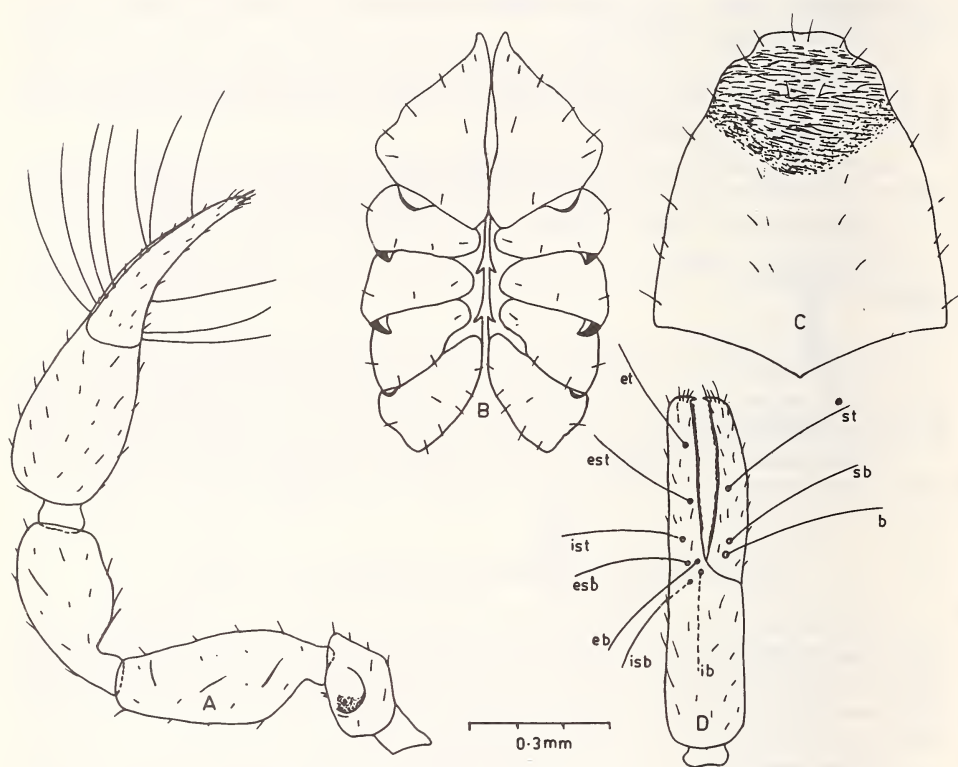


FIG. 3.

*Sternophorus (Afrosterophorus) intermedius* n. sp.

- A. Pedipalp entire (♀); B. Coxal area, showing the pseudosternite;  
C. Carapace; D. Chela, lateral view.

with a short pedicel which is wider than long, sub-basally more swollen, with one pseudo-tactile seta on the dorsal aspect, 2.28 to 2.44 times as long as wide; femur longer than tibia, hand and fingers; tibia with a stout pedicel, shorter than the fingers and hand, 2.0 to 2.2 times as long as wide; chela pedicellate, oval in shape, 3.5 to 3.7 times (with pedicel), 3.2 to 3.4 times (without pedicel) as long as wide in females and 3.6 to 4.2 times (with pedicel) 3.32 to 3.58 times (without pedicel) as long as wide in males; hand in lateral view with dorsal and ventral margins very weakly convex and almost parallel and appears cylindrical in outline, 1.85 to 2.0 times (with pedicel), 1.55 to 1.78 times (without



pedicel) as long as wide in females and 1.9 to 2.2 times (with pedicel), 1.7 to 1.82 times (without pedicel) as long as wide in males. Fingers subequal, gently curved, longer than the tibia and equal in length of hand, but shorter than femur; fixed finger with 23 to 25 teeth and the movable finger with 24 to 27 teeth; they are arranged nearly the entire margin of each finger except the 1/5 proximal region; the shape of the teeth in distal and middle region varying from retroconical to cuspidate and shallow rounded teeth in the 1/3 basal part of the row. Fixed finger with a row of small thin setae running parallel to the row of the marginal teeth, movable finger with 9 setae in such a row, of which 6 are heavy setae alternatively placed with small thin setae. Fixed finger with 7 tactile setae, *it* being absent; distal half of the finger only with *et*; *eb* and *esb* of the same level; *est* almost in the middle of *eb* and *et* distal to *ib*; *ib* and *isb* separated by two areolar diameters; *ist* midway between *est* and *esb* and well separated from *isb*. Movable finger with 3 tactile setae, *t* being the missing seta. *b* and *sb* separated by 3 areolar diameters in the proximal half of the finger and *st* in the middle region of the finger. Venom tooth well developed in both the fingers.

Legs stout, yellowish to yellowish brown; segments apparently without surface sculpture; investing setae more in tibial and tarsal segments, fine and acuminate; basifemur and telofemur of all the legs articulated by a straight suture. Postero-lateral corners of the pedal coxae drawn out in the form of recurved hook like structures.

Leg I: basifemur much shorter than telofemur; femur 2.17 times, tibia 2.57 times and tarsus 2.4 times as long as deep. Leg III and IV with long pseudotactile setae on tibia and tarsus, one in the middle region of tibia and the other attached to the base of tarsus; tibial pseudotactile seta shorter than that of the tibia and tarsal longer than that of tarsus. Leg IV: femur 2.63 times, tibia 2.86 times and tarsus 2.17 times as long as deep. Claws well developed, strong and symmetrical, arolia entire and well developed, shorter than claws. At the distal end of the tarsus there are 3 small setae. The length/width ratio of the third coxa is 2.25 times as long as wide.

*Holotype female* (Measurements in mm):

Total body length 2.411, width 0.922; carapace 0.768 by 0.677; chelicera 0.194 by 0.10; movable finger 0.116 long.

Palps: trochanter 0.333 by 0.222; heel 0.244 long; femur 0.50 by 0.401; tibia 0.444 by 0.222; chela 0.911 (without pedicel 0.845) by 0.267; hand 0.467 (without pedicel, 0.40) by 0.267; fingers 0.444 long.

Leg I: Femur 0.289 by 0.133; tibia 0.20 by 0.077; tarsus 0.134 by 0.055. Leg IV: femur 0.467 by 0.178; tibia 0.333 by 0.117; tarsus 0.145 by 0.066. III coxa 0.30 by 0.133.

Collected from bark, Alakarkoil Hill forest, Madurai District, Tamil Nadu, 15.7.1977.

*Allotype male*: Collected from bark, Alakarkoil Hill forest, Madurai District, Tamil Nadu. 15.7.1977.

*Paratypes*: 5 females, 10 males and 5 tritonymphs collected from the same locality, 15.7.1977.

This new species may be separated from *Sternophorus* (*A.*) *aethiopicus* Beier based on the stouter nature of palpal podomeres in the former, it can also be distinguished from the same in not having the distal portion of the palpal femur highly constricted. It can be separated from *S. (A.) femoratus* n. sp. based on the width of trochanter longer than the width of femur and tibia and the carapacial ratio in *S. (A.) intermedius* 1.26 to 1.35 times, whereas in *S. (A.) femoratus* 1.17 to 1.22 times.

**Indogaryops** n.gen.

Type species: *Indogaryops amrithiensis* n. sp.

Carapace with anterior portion distinctly constricted or narrowed to form an abrupt and distinct shoulder; anterior 1/3 of the carapace pigmented and sclerotized, posterior 2/3 much wider and weakly pigmented. Anterior portion of the carapace protruded as a distinct cucullus; galea of the female stout with two terminal, one subterminal and one basal rami, each ramus usually gently curved and acute; in male galea strongly developed, curved and acute without rami; femur of the pedipalp much slender. Movable chelal finger with three tactile setae, probably *t* being the missing seta; fixed finger with seven tactile setae, the missing seta being *it*; median cribriform plates of female without spurs or spines.

This new genus is closely related to *Garyops* Banks in having a well developed shoulder in the carapace and with three tactile setae in the movable palpal finger. It could be separated from the former by the presence of a distinct anterior cucullus of the carapace; *sb* on the cheliceral palm instead of *ls*, *ls* being absent and median cribriform plates of females without spines or spurs. The pseudosternal area inbetween the first pair of coxae wide, where as in *Garyops* it is considerably narrow.

**Indogaryops amrithiensis** n.sp. (Fig. 4)

Carapace uniformly yellowish brown, palps reddish brown; anterior 1/3 of the carapace sclerotised with net-like markings, posterior part much wider forming an abrupt shoulder in the first pair of walking legs region; anterior end with a distinct cucullus bearing 6 setae, posterior margin with 4 setae, moderately developed and acuminate. Eyes or eye-spots absent. Carapace with the maximum width in the region of the third pair of legs; 1.16 to 1.2 times as long as wide with well developed setae arranged in the formula 6 - 4 - 6 - 6 - 2 - 4.

Tergites weakly sclerotized, light yellowish brown; tergites I to III slightly narrower than others, chaetotaxy 6 - 6 - 4 - 4 - 6 - 6 - 6 - 4 - 6 - 8 - 14 - 2 m. Tergite X and XI with four long pseudotactile setae each. Sternite pale yellowish; sternite II feebly divided, chaetotaxy of IV to XI, 4 - 4 - 4 - 6 - 6 - 6 - 8 - 14; sternite XII reduced, with 2 setae; sternites X and XI with four pseudotactile setae each; sternite II of female without setae and III with two groups of 6 setae on either side of the genital opening. Single seta present on the II pair of stigmata. Cribriform plates without spines or spurs. Chelicerae light brown, surface smooth; palm with 4 setae *es* and *ib* long, *ib* short and blunt; *ls* being the missing seta; *sb* equal to the length of the movable finger. Flagellum with 3 blades, proximal one short, distal two much thickened and long. Fixed finger with 2 terminal serrations followed by 4 triangular teeth, serrula interior well developed and smooth; movable finger terminally with apical and subapical tooth well developed; in female galea well developed with 2 terminal, one subterminal and one basal rami; slightly curved and a acuminate. Galeal seta short and blunt extending up to the base of the galea. Serrula exterior with 11 blades last two slightly longer and acuminate. Chelicerae, 1.79 times as long as deep; 1.55 times as long as the movable finger.

Palps shorter than the body, podomeres slender; surface of trochanter and femur granulate, conspicuous on the trochanter and flexor margins of femur and tibia; chela smooth; investing setae conspicuous long and clavate and terminally toothed; trochanter with a slender pedicel, 1.73 times as long as wide; heel weakly developed, 1.37 times as

width of trochanter; higher than the width of femur and tibia; 0.86 times the width of chela; femur with a long slender pedicel which is longer than wide; basally slightly swollen with a single pseudotactile seta on the dorsal aspect; 3.03 times as long as wide; femur longer than tibia, hand and fingers; tibia with a stout pedicel, equal to the length of hand with pedicel and longer than fingers; 2.5 times as long as wide; chela pedicellate,

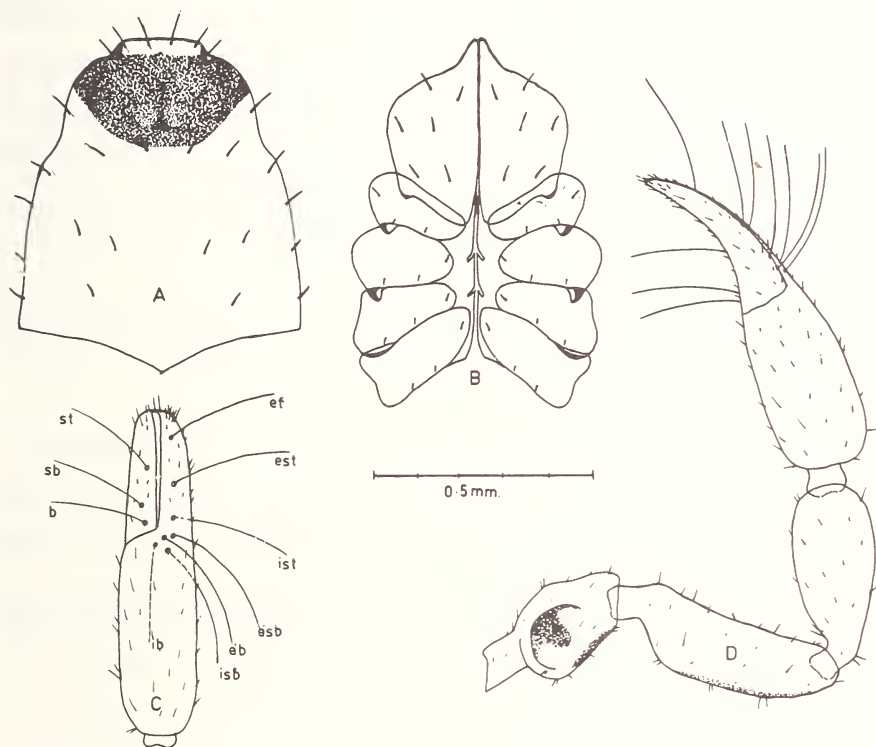


FIG. 4.

*Indogaryops amrithiensis* n. gen. & n. sp.

- A. Carapace; B. Coxal area, showing the pseudosternite;  
C. Chela, lateral view; D. Pedipalp entire (♀).

oval in shape, 3.86 times (without pedicel 3.63 times) as long as wide; hand in lateral view with dorso-ventral margins very weakly convex and almost parallel; 2.04 times with pedicel (without pedicel 1.81 times) as long as wide. Fingers subequal, gently curved, shorter than hand and tibia. Fixed finger with 16 and movable finger with 19 teeth; they are arranged upto  $2/3$  of the distal region, with teeth varying from retroconical to cuspidate; the teeth arranged at the base are shallow and rounded. Fixed and movable fingers with a row of 6 small setae each running parallel to the row of marginal teeth. Fixed finger with 7 tactile setae, *it* being absent; distal half of the finger with only *et*; *est* much

distal to *esb*; *est* nearer to *esb* than to *et*; *eb* basal to *ib*; *ib* and *isb* separated by 2 areolar diameters; *ist* well separated from *isb*, placed midway between *est* and *isb*; movable finger with 3 tactile setae; *t* being absent. *b* and *sb* separated by 3 areolar diameters in the proximal half of the movable finger and *st* in the middle region of the finger slightly towards distal region. Venom teeth well developed in both fingers.

Legs slender, anterior 2 pairs brownish yellow and posterior 2 pairs yellowish in colour; segments apparently without surface sculpture; investing setae sparse, fine and acuminate; basifemur and telofemur of the anterior pairs of legs articulated by a straight line and posterior pairs by a curved line.

Leg I: basifemur shorter than telofemur; femur 2.57 times, tibia 3.17 times and tarsus 3.25 times as long as deep. Leg IV with long pseudotactile setae on tibia and tarsus, one in the middle region of the tibia and the other at the basal region of the tarsus; Leg III with pseudotactile seta on the basal region of the tarsus; tibial and tarsal pseudotactile setae shorter than that of tibia and tarsus respectively. Leg IV: femur 2.86 times, tibia 3.0 times and tarsus 2.0 times as long as deep. Claws well developed, strong and symmetrical; arolia entire, well developed and shorter than claws. At the distal end of each tarsus there is a cluster of four investing setae.

Pseudosternal plate not narrowed at the region of first pair of legs, pseudosternal plate compact, the third pair of coxae much stouter, 1.92 times as long as wide. Posterolateral corners of the pedal coxae I and II drawn out into recurved hook-like structures.

*Holotype female* (Measurements in mm):

Total body length, 2.689, width, 0.988; carapace, 0.80 by 0.667; chelicera, 0.189 by 0.106; movable finger, 0.122 long.

Palps: trochanter, 0.367 by 0.211; heel, 0.289 long; femur, 0.556 by 0.183; tibia, 0.50 by 0.20; chela, 0.944 (without pedicel, 0.889) by 0.244; hand, 0.50 (without pedicel, 0.444) by 0.244; fingers, 0.444 long.

Leg I: femur, 0.30 by 0.117; tibia, 0.211 by 0.067; tarsus, 0.144 by 0.044; Leg IV: femur, 0.444 by 0.156; tibia, 0.30 by 0.10; tarsus, 0.133 by 0.067. III coxa, 0.278 by 0.144.

Holotype collected from bark, Amrithi forest, North Arcot, Tamil Nadu, 2.10.1977.

Paratype female; collected from the same locality, 2.10.1977.

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*Author's address :*

Department of Zoology  
Loyola College  
Madras-600 034, INDIA

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